[redacted] 25X1

CONFIDENTIAL

[redacted] 25X1

6 June 1956

COMNAVGER [redacted] 25X1

EAST GERMANY/VP-SEE research on navigational equipment

ADVANCED REPORT FOR NAVY USE ONLY

~~Research on navigational equipment for new VP-SEE units is being car-~~ried out. Equipment includes new type master gyro compasses, repeaters with automatically adjusted digaussing loops, a projection device to allow helmsman to sight compass at the conning station, a small ELEKTROLYT KOMPASS for SCHWALBE or FORELLE class, gyro pilot, log for fast vessels depth recorders and echo sounding apparatus, automatic plotters and bridge control desks.

1. "Zentralkreiselgeraet".

This was the name for a new type of master gyro compass with 10 to 12 repeater compasses. It was in the design and development stage at MFT FUNKWERK KOEPENICK in 1953/54. The 1953/54 design had, however, proved too big and too heavy for VP-SEE craft. This was partially caused by VP-SEE not having specified the requirements precisely enough when placing the order. MFT FUNKWERK KOEPENICK was, therefore, ordered to design and develop a smaller "Zentralkreiselgeraet" in 1955/56. Designing was not finished in April 1956. [redacted] it would be completed this year however. This research project was among those ordered and paid for by VP-SEE directly. 80,000 East DM had been approved for 1956-work on the project.

2. Master gyro compass with fast synchronizer.

Designing and developing this compass was underway at MFT FUNKWERK KOEPENICK in early 1956. Work comprised designing only the synchronizer.

ADVANCED REPORT FOR NAVY USE ONLY

CONFIDENTIAL

[redacted] 25X1

25X1

NAVY review

25X1

Requirements as set forth by VP-SEE were: compass to head true north after 10 to 12 seconds; conditions under which it was expected to do [redacted] A prototype compass was scheduled to be ready for testing in 1956. This research project was among those ordered and paid for by VP-SEE directly. 125,000 East DM had been approved for 1956-work on the project.

25X1

25X1

3. Special repeater compass.

Purpose of this compass was to have degaussing loops aboard automatically adjusted in accordance with the steered course. To achieve this, the "special" repeater compass was to be connected by extra cables to the degaussing loops. Designing and developing the compass was scheduled to be ready for testing by mid 1956. [redacted] the problem will be solved in 1956. MFT FUNKWERK KOEPENICK was also scheduled to build the compasses. In this connection, [redacted] MFT FUNKWERK KOEPENICK at BERLIN-KOEPENICK had been selected to become the compass manufacturing plant in the SOVZONE. This research project was among those ordered and paid for by ZENTRALAMT FUER FORSCHUNG & ENTWICKLUNG BEI DER STAATLICHEN PLANKOMMISSION (hereafter referred to as ZENTRALAMT) on behalf of VP-SEE. 60,000 East DM had been approved for 1956-work on the project.

25X1

4. "Projektionskompass".

This was no real designing project as the plant in charge, VEB GERAETE-[redacted] & REGLERWERK at TELTOW (formerly ASKANIA Works) had obtained one such compass from West-GERMANY after which they had to develop a model of their own. A prototype compass was assumed [redacted] scheduled to be ready for testing by mid 1956 yet. The compasses were planned for either SCHWALBE or FORELLE-class units. This research project was among those ordered and paid for by ZENTRALAMT --- on behalf of VP-SEE. 50,000 East DM had been approved for 1956-work on the project.

25X1

25X1

5. "Elektrolytkompass".

25X1

This was a small compass [redacted] 25X1

[redacted] Compasses were planned to be used aboard either SCHWALBE or FORELLE-class units. Designing and developing order for 1 prototype compass had been placed with above VEB GERAETE- & REGLERWERK at TELTOW in 1955. Future orders will be placed only after tests with the prototype have proved its usefulness. This research project was among those ordered and paid for by VP-SEE directly. 100,000 East DM had been approved for 1956-work on this project.

25X1

6. Compasses for small ship-classes.

25X1

POEHLLE-class PT-boats and SCHSALBE-class minelayers and mine-sweepers will most likely not be equipped with gyro compasses. They are considered too small for same. One of the above 2 classes was, therefore, scheduled to be equipped with "Projektionskompass", the other class with "Elektrolykompass".

7. Gyro pilot for ships and small craft.

Designing has been completed at RFT FUNKWERK KOPENICK. A prototype set was to be ready for testing in 1956. The set was supposed to be installed in KRAKE-class chiefly, despite the mentioning of "small craft". This research project was among those ordered and paid for by ZENTRALAMT on behalf of VP-SEE. 95,000 East DM had been approved for 1956-work on the project.

25X1

8. Log ("Fahrtmessanlage").

VP-SEE wanted a log especially for fast ships. Designing was to be completed in 1956. RFT FUNKWERK KOPENICK the only plant approached so far, had not accepted the order as to design this unit. It is assumed this was the result of VP-SEE's asking for a high-speed log which, it is thought cannot be designed as a pressure-type log as VP-SEE had thought. The log will probably be designed and developed at RFT FUNKWERK KOPENICK as a so-called "Studienentwurf". This research project was among those ordered and paid for by VP-SEE directly. 120,000 East DM had been approved for 1956-work on the project. In this connection, [redacted] high-ranking VP-SEE officers had discussed the idea of using this "Fahrtmessanlage" (log) as an echo sounding gear whereby the forward opening would act as transmitter and the aft opening as receiver.

25X1

9. Depth recorder and indicator ("Echograph mit Rotlichtanzeige").

This fathometer was required to work down to 1,200-meter depth; minimum depth remaining [redacted] Designing was underway at RFT FUNKWERK KOPENICK since 1955, but little progress has been made. Prototype fathometers were scheduled to be ready for testing by the end of 1956. This research project was among those ordered and paid for by ZENTRALAMT ... on behalf of VP-SEE. 110,000 East DM had been approved for 1956-work on the project.

10. Shallow-water echo sounding gear ("Echoflachlot").

Designing and developing this fathometer had been one of S.H.I.'s (HAUTISCH HYDROGRAPHISCHES INSTITUT) last missions before its disestablishment in 1955. VP-SEE had ordered 2 prototype sets which had been built at the above institute and were tested aboard S.H.D.-craft in STRALSUND waters. Tests were successful. During 1956, a RFT FUNKWERK KOPENICK was ordered

to build 12 ~~xxxx xxxxx~~ each sets following S.H.I. design for VP-SEE, S.H.D. ordered another 12, and VEB YACHTWERFT at KOEPENICK another 6, 8, or 10 for SCHWALBE-class units building in the shipyard. Those to be ~~xxx~~ built for S.H.D. will probably have a recording system ("Echograph"). Price per set with "Echograph" came up to 7,600 East DM. The following data on above gear [redacted] range between 0.5 and 20 meters; faulty indications between 2 and 3% only; set was "schwellwassergesichert", officially indicated by the symbol "F 44"; the set was "ruettel- & schlagsicher" (shock resistant); "Schwinger" (oscillators or vibrators) were made of plastic or ceramic material instead of metal; the gear did not send out electric but sound impulses. This research project was among those ordered and paid for by VP-SEE directly. 160,000 East DM had been approved for 1956-work on the project. [redacted] not all this amount will be needed for above project and will be transferred to funds approved for 1956-work on x other projects. 25X1 25X1

11. Automatic plotter ("Automatisches Koppelgeraet").

Designing was finished at ~~xxx~~ FUNKWERK KOEPENICK. A prototype set was to be ready for x testing in 1956. The set was mainly for KNAKE-class. ~~The~~ This research project was among those ordered and paid for by ZENTRALAMT on behalf of VP-SEE. 100,000 East DM had been approved for 1956-work on this project.

12. Nautical range finders ("Nautische Entfernungsmesser").

As requirements for the sets had not been specified exactly by VP-SEE and a plant to design, develop, and build same had not yet been selected, source had no information whatsoever. This research project was among those ordered and paid for by VP-SEE directly. 30,000 East DM had been approved for 1956-work on the project.

13. "Schiffsbefehlsanlagen - B & M Anlagen".

The letters B and M stood for "Befehls & Melde-Anlagen". These were probably to become some kind of conning bridge control desks. Designing and developing was completed by ~~xxx~~ FUNKWERK KOEPENICK in 1954 or early 1955. A prototype set was built in 1955 and displayed during the last LEIPZIG fair. In 1956, another 12 or 15 "desks" were scheduled to be built at the above plant. Their construction has begun. The desks were ~~xxx~~ planned to be installed in FALKE-C and KNAKE-class units. This research project was among those ordered and paid for by ZENTRALAMT on behalf of VP-SEE. 100,000 East DM had been approved for 1956-work on the project.